



ICF
ESAT Region 3
US Environmental Protection Agency Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Phone 410-305-3012

Date: January 3, 2019
To: Brandon McDonald
ESAT Region 3 Project Officer

From: Ex. 4 CBI
Validator

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Reviewer

Subject: Organic Data Validation (S4VEM)
Paden City Site Assessment
48006, C0AA2

Overview

This data package consisted of four (4) trip blanks and thirteen (13) soil samples including a field duplicate sample analyzed for volatile target analytes.

Analyses were performed by Shealy Environmental Services (EQI) according to Contract Laboratory Program (CLP) Statement of Work (SOW) SOM02.4.

Data were validated according to the National Functional Guidelines for Organic Superfund Methods Data Review and applicable USEPA Region 3 modifications. Electronic validation was performed by the Electronic Data eXchange & Evaluation System (EXES). The validation report has been assigned the Superfund Data Validation Label S4VEM (Stage_4_Validation_Electronic_Manual).

The following validation narrative is an evaluation of laboratory reported data based on the electronic data package available through the EXES Data Manager dated December 17, 2018.

Summary

No data quality outliers that would require qualifying sample results were identified in this case.

Notes

Detected concentrations less than Contract Required Quantitation Limit (CRQL) are estimated and have been qualified "J" unless they were raised to the CRQL and qualified "U" due to blank contamination.

The trip and rinsate blanks reported concentrations of acetone, 2-butanone and/or tetrachloroethene < the CRQL. Positive results for these analytes < the CRQL have been raised to the CRQL and qualified "U".

Laboratory blanks VBLKUG, VBLKVB, VBLKVY and VHBLK01 reported acetone, 2-butanone and/or 2-hexanone at < the CRQL. Positive results for these analytes < the CRQL in samples associated with these laboratory blanks have been raised to the CRQL and qualified "U".

Based on screening, samples listed were initially analyzed as medium level soil samples. In addition, the medium level extracts of two samples listed were initially analyzed diluted to bring concentration of analytes within the calibration range. CRQLs are elevated in these samples.

Samples	DF
C0AA8, C0AA9, C0AB9	None
C0AA4	2000X
C0AB8	40X

Tetrachloroethene exceeded the calibration range in the initial analysis of samples listed below. These samples were reanalyzed as medium level and/or dilution in order to quantitate this analyte within the calibration range. Results from both the initial and medium level analyses are reported in EDD files. Results from the initial analyses are marked "Reportable" except for tetrachloroethene which are marked reportable from the medium level analyses. There is no indication that these exceedance issues impacted subsequent sample analyses.

Sample	DF	Analyte
C0AA2ME	2X	Tetrachloroethene
C0AA3ME, C0AA5ME, C0AA6ME	None	Tetrachloroethene

Results for the field duplicate sample C0AA6/C0AB9 were comparable except for tetrachloroethene.

Tentatively Identified Compounds (TICs) are not reviewed by data validators. The validation qualifiers are applied by EXES electronic validation based on laboratory qualifiers. By definition, all compounds identified as TICs should be treated as tentative identifications and all reported results should be considered estimated.

Manual integrations were performed and identified by the laboratory. A subset of these was evaluated by the reviewer and found to be accurate and consistent. No action was taken by the reviewer based on manual integrations.

Glossary of Organic Data Qualifier Codes

Validation Qualifiers	In order of descending precedence. Only one of these qualifiers may apply to any result.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
Additional Qualifiers	Additional qualifiers may be combined with other qualifiers.
N	The analyte has been "tentatively identified" or "presumptively" as present.
B	The result is presumed a blank contaminant. This qualifier is used for drinking water samples only.
C	The target Pesticide or Aroclor analyte identification has been confirmed by Gas Chromatography/Mass Spectrometry (GC/MS). This qualifier may be added to other qualifiers.
X	The target Pesticide or Aroclor analyte identification was not confirmed when GC/MS analysis was performed. This qualifier may be added to other qualifiers.